SEQUENCE LISTING

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<120> T-m Leveling Methods

<130> 17682A-003630US

<140> US 10/032,307
<141> 2001-12-21

<150> US 09/054,830
<151> 1998-04-03

<150> US 09/054,832
<151> 1998-04-03

<150> US 09/431,385
<151> 1999-11-01

<150> US 60/186,046
<151> 2000-03-01

<150> US 09/640,953
<151> 2000-08-16

<150> US 09/724,959
<151> 2000-11-28

<150> US 09/796,988
<151> 2001-02-28

<160> 90

<170> PatentIn Ver. 2.1

<210> 1
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<220>
<223> Description of Artificial Sequence:minor groove binder (MGB)-modified FAM probe

<220>
<221> modified_base
<222> (1)
<223> n = c modified by FAM

<220>
<221> modified_base
<222> (18)
<223> n = t modified by a quencher (Q) and minor groove binder (MGB)

<400> 1
nttttgacct aacaaatn 18

<210> 2
<211> 36
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:minor groove binder (MGB)-modified FAM probe complement

<400> 2
atgttaattt gttaggtcaa aagaaaaatc tttaga 36

<210> 3
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine (PPPA) analog of adenosine and pyrazolo[3,4-d]pyrimidine analog of guanosine (PPG) containing minor groove binder (MGB)-modified FAM probe

<400> 3
tacaattaaa caatccagtt ttctttttag aaatct 36

<210> 4
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine (PPPA) analog of adenosine and pyrazolo[3,4-d]pyrimidine guanosine (PPG) containing minor groove binder (MGB)-modified FAM probe complement

<220>
<221> modified_base
<222> (1)
<223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine modified by FAM

<220>
<221> modified_base
<222> (5)..(6)
<223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine

<220>
<221> modified_base
<222> (9)..(11)
<223> n =
4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
analog of adenosine

<220>
<221> modified_base
<222> (15)
<223> n = a modified by a quencher (Q) and minor groove
binder (MGB)

<400> 4
nttannntcnn nagan 15

<210> 5
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:TM-Invader
probe substituted with six
pyrazolo[3,4-d]pyrimidine analogs of guanosine

<220>
<221> modified_base
<222> (2)..(7)
<223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine

<400> 5
tnnnnnncct tggcggctac g 21

<210> 6
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:TM-Invader
probe substituted with one
pyrazolo[3,4-d]pyrimidine analog of guanosine

<220>
<221> modified_base
<222> (5)
<223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine

<400> 6
tgggnggcct tggcggctac g 21

<210> 7
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:TM-Invader probe

<400> 7
tgggggggcct tggcggctac g 21

<210> 8
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
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<400> 8
tcggcggcgt 10

<210> 9
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary target 2

<400> 9
acagcggcgt 10

<210> 10
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary target 3

<400> 10
acagcgacgt 10

<210> 11
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary target 4

<400> 11
tcagtgacga 10

<210> 12
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary
target 5

<400> 12
tcagtgacaa 10

<210> 13
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary
target 6

<400> 13
tcaatgacag 10

<210> 14
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary
target 7

<400> 14
acaatgataa 10

<210> 15
<211> 10
<212> DNA
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<220>
<223> Description of Artificial Sequence:complementary
target 8

<400> 15
ccaataataa 10

<210> 16
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:complementary
target 9

<400> 16
gtaataataa 10

<210> 17
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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1

<400> 17
aaagttatgt ctacttacag aaa 23

<210> 18
<211> 23
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<213> Artificial Sequence

<220>
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2

<400> 18
aaagctatgt ctacttacag aaa 23

<210> 19
<211> 23
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<213> Artificial Sequence

<220>
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3

<400> 19
aaagtcatgt ctacttacag aaa 23

<210> 20
<211> 23
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
4

<400> 20
aaagttgtgt ctacttacag aaa 23

<210> 21
<211> 23
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<213> Artificial Sequence

<220>
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5

<400> 21
aaagttacgt ctacttacag aaa 23

<210> 22
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
6

<400> 22
aaagttatat ctacttacag aaa 23

<210> 23
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<220>
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7

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aaagttatgc ctacttacag aaa 23

<210> 24
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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8

<400> 24
aaagttatgt ttacttacag aaa 23

<210> 25
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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9

<400> 25
aaagttatgt ccacttacag aaa 23

<210> 26
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
10

<400> 26
aaagttatgt ctgcttacag aaa 23

<210> 27
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
11

<400> 27
aaagttatgt ctatttacag aaa 23

<210> 28
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
12

<400> 28
aaagttatgt ctacctacag aaa 23

<210> 29
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
13

<400> 29
aaagttatgt ctactcacag aaa 23

<210> 30
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence
14

<400> 30
aaagttatgt ctacttgcag aaa 23

<210> 31
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target sequence
1

<400> 31
gtaagtagac ataac 15

<210> 32
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target sequence
2

<220>
<221> modified_base
<222> (1)..(15)
<223> n = 4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
analog of adenosine

<400> 32
gtnngtngnc ntnnc 15

<210> 33
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target sequence
3

<220>
<221> modified_base
<222> (15)
<223> n = c modified by minor groove binder (MGB)

<400> 33
gtaagtagac ataan 15

<210> 34
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:target sequence
4

<220>
<221> modified_base
<222> (1)..(14)
<223> n = 4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
analog of adenosine

<220>
<221> modified_base
<222> (15)
<223> n = c modified by minor groove binder (MGB)

<400> 34
gtnngtngnc ntnnn 15

<210> 35
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement match

<400> 35
agctgtgact 10

<210> 36
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 1

<400> 36
agctgtgact 10

<210> 37
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 2

<400> 37
agcggtgact 10

<210> 38
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 3

<400> 38
agccgtgact 10

<210> 39
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 4

<400> 39
agcagagact 10

<210> 40
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 5

<400> 40
agcagggact 10

<210> 41
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 6

<400> 41
agcagcgact 10

<210> 42
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 7

<400> 42
agcaatgact 10

<210> 43
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 8

<400> 43
agcattgact 10

<210> 44
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 9

<400> 44
agcactgact 10

<210> 45
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement match

<400> 45
aataataacc 10

<210> 46
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 10

<400> 46
aattataacc 10

<210> 47
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 11

<400> 47
aatgataacc 10

<210> 48
<211> 10
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:duplex
complement 12

<400> 48
aatcataacc 10

<210> 49
<211> 10
<212> DNA
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<220>
<223> Description of Artificial Sequence:duplex
complement 13

<400> 49
aataaaaacc 10

<210> 50
<211> 10
<212> DNA
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<220>
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complement 14

<400> 50
aataagaacc 10

<210> 51
<211> 10
<212> DNA
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<220>
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complement 15

<400> 51
aataacaacc 10

<210> 52
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extension template

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aaccactctg tccta 15

<210> 53
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<220>
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<400> 53
ctgtaagtag atataac 17

<210> 54
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ggcaagatat atag 14

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<220>
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<400> 55
gtgacgcaga ttcc 14

<210> 56
<211> 15
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<220>
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<400> 56
gtaagtagac ataac 15

<210> 57
<211> 14
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<220>
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<400> 57
cagggagctt tgga 14

<210> 58
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<220>
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<400> 58
cactcgtgaa gctg 14

<210> 59
<211> 15
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<220>
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<400> 59
gtaagtaggc ataac 15

<210> 60
<211> 14
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<220>
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<400> 60
ccggatgtag gatc 14

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<211> 14
<212> DNA
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<220>
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<400> 61
gattacctgg attt 14

<210> 62
<211> 14
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<220>
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<400> 62
ccgtcaatgg tcac 14

<210> 63
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 63
cagcacgtag cc 12

<210> 64
<211> 14
<212> DNA
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<220>
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<400> 64
cggctacgtg ctgg 14

<210> 65
<211> 14
<212> DNA
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<220>
<223> Description of Artificial Sequence:probe sequence

<400> 65
cggctacatg ctgg 14

<210> 66
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 66
ctaaatctgc cg 12

<210> 67
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 67
tctggatgat gggca 15

<210> 68
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 68
gttcatgggt gtaat 15

<210> 69
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 69
cggaggtagg atca 14

<210> 70
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 70
ccacccgcct cag 13

<210> 71
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 71
cacaggagtg gttgg 15

<210> 72
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 72
cggaccagtg cgtg 14

<210> 73
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
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<400> 73
tcggaccagt gcgt 14

<210> 74
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 74
aacggggtac gata 14

<210> 75
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 75
cagttgagat tctaagac 18

<210> 76
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
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<400> 76
aggggcgtct tg 12

<210> 77
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
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<400> 77
gtaagtaggc atagc 15

<210> 78
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 78
tgcccagccc cag 13

<210> 79
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 79
ccaacactcg tgaa 14

<210> 80
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 80
gtaagtagac acagc 15

<210> 81
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 81
tcggaccagt gc 12

<210> 82
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 82
cgatcacgct ggc 13

<210> 83
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 83
gtcctggggg tgg 13

<210> 84
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 84
gtaagtaggt gtgac 15

<210> 85
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 85
ggttgtacgg gttcacg 17

<210> 86
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 86
ggaccagtgc gtga 14

<210> 87
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 87
gtaagtagac gcagc 15

<210> 88
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
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<400> 88
gtaagtaggc gcagc 15

<210> 89
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 89
gtaagtaggc gcggc 15

<210> 90
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:probe sequence

<400> 90
ggttcccgag cg 12